

Applicant : Hiraku Itadani et al.
Serial No. :
Filed :
Page : 3 of 6

Attorney's Docket No.: 14871-083002 / B1-103PCT-
USD1

IN THE CLAIMS:

Please cancel claims 1-35, without prejudice. This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

Claims 1-35 (Canceled).

36. (New) An isolated nucleic acid consisting of SEQ ID NO:21 or SEQ ID NO:26.
37. (New) An isolated nucleic acid comprising SEQ ID NO:21 or SEQ ID NO:26.
38. (New) An isolated nucleic acid encoding a polypeptide comprising a sequence as set forth in SEQ ID NO:20 or SEQ ID NO:25.
39. (New) An isolated nucleic acid comprising a strand that hybridizes under high stringency conditions to a single stranded probe, the sequence of which probe consists of SEQ ID NO:21 or 26 or the complement thereof, wherein the nucleic acid encodes a polypeptide that has an activity of a G protein-coupled receptor protein, and wherein the high stringency conditions comprise hybridization at 37 °C in 6X SSC, 40% formamide and washing in 0.1X SSC at 62 °C.
40. (New) The nucleic acid of claim 39, wherein the polypeptide comprises a sequence of as set forth in SEQ ID NO:20 or SEQ ID NO:25.
41. (New) The nucleic acid of claim 39, wherein the strand is at least 15 nucleotides in length.
42. (New) A vector comprising the nucleic acid of claim 36.
43. (New) A vector comprising the nucleic acid of claim 37.
44. (New) A vector comprising the nucleic acid of claim 38.
45. (New) A vector comprising the nucleic acid of claim 39.

46. (New) A cultured host cell comprising the nucleic acid of claim 36.
47. (New) A cultured host cell comprising the nucleic acid of claim 37.
48. (New) A cultured host cell comprising the nucleic acid of claim 38.
49. (New) A cultured host cell comprising the nucleic acid of claim 39.
50. (New) A method of producing a polypeptide, the method comprising culturing the cultured host cell of claim 46 in a culture, expressing the polypeptide encoded by the nucleic acid in the cultured host cell, and isolating the polypeptide from the culture.
51. (New) An isolated nucleic acid encoding a polypeptide the sequence of which comprise the amino acid sequence of SEQ ID NO:20 or SEQ ID NO:25 with 0 to 10 conservative amino acid substitutions, wherein the polypeptide has an activity of a G protein-coupled receptor protein.
52. (New) The isolated nucleic acid of claim 51, wherein the number of conservative amino acid substitutions is 0 to 3.
53. (New) An isolated nucleic acid comprising a nucleotide sequence that is at least 70% homologous to SEQ ID NO:21 or SEQ ID NO:26, wherein the nucleic acid encodes a polypeptide that has an activity of a G protein-coupled receptor protein.
54. (New) An isolated nucleic acid of claim 53, wherein the nucleotide sequence is at least 80% homologous to SEQ ID NO:21 or SEQ ID NO:26.
55. (New) The isolated nucleic acid of claim 53, wherein the nucleotide sequence is at least 90% homologous to SEQ ID NO:21 or SEQ ID NO:26.
56. (New) The isolated nucleic acid of claim 53, wherein the nucleotide sequence is at least 95% homologous to SEQ ID NO:21 or SEQ ID NO:26.
57. (New) An isolated nucleic acid comprising a sequence that encodes a polypeptide the amino acid sequence of which is at least 60% identical to SEQ ID NO:20 or SEQ ID NO:25, wherein the polypeptide has an activity of a G protein-coupled receptor protein.

Applicant : Hiraku Itadani et al.

Serial No. :

Filed :

Page : 5 of 6

Attorney's Docket No.: 14871-083002 / B1-103PCT-

USD1

58. (New) The isolated nucleic acid of claim 57, wherein the amino acid sequence is at least 80% identical to SEQ ID NO:20 or SEQ ID NO:25.

59. (New) The isolated nucleic acid of claim 57, wherein the amino acid sequence is at least 95% identical to SEQ ID NO:20 or SEQ ID NO:25.